S2500PB SERIES

Product Overview

BDCOM S2500PB Series is a new-generation intelligent POE access switch designed for carrier's IP MAN and enterprise networks. Based on the new-generation high-performance hardware and BDROS platform, it supports functions such as ACL, QinQ and QoS. Its simple management mode and flexible installation can meet the requirement of any complicated scenarios.

BDCOM S2500PB Series has 3 models: S2510PB, S2518PB and S2528PB.

Product Characteristics

Carrier-Level Ethernet Access Switch

S2500PB Series supports the carrier-level Ethernet- ring protection protocol with less than 50ms recovery time, STP/RSTP/MSTP, backup uplink ports, and LACP link aggregation to cater to the requirements of high reliability of carriers;

S2500PB Series has powerful ACL functions to access and control L2-L7 data based on physical port, providing carriers flexible and various policy control methods;

S2500PB Series supports In-Service Software Upgrade (ISSU) to ensure the unremitting data forwarding during system upgrade;

S2500PB Series supports various L2 multicast functions such as IGMP-snooping, fast-leave and MVR to fully meet the operation requirements of carrier's IPTV.

Security+

Equipment-level security: The advanced hardware infrastructure design realizes the level- based packet schedule and packet protection, prevents DoS-/TCP-related SYN Flood, UDP Flood, Broadcast Storm or large traffic attacks, and supports level-based command line protection, endowing different levels of users with different management permissions.

Perfect security authentication mechanisms: IEEE 802.1x, Radius and BDTacacs+.

S2500PB Series supports storm/multicast/unicast limit, ensuring the normal running of equipment in harsh network conditions.

S2500PB Series supports perfect ring detection mechanism, ensuring the long-term stable running of network.

S2500PB Series supports port isolation within the same VLAN, DHCP-Snooping, and IP + MAC + Port binding.

Enhanced QoS

S2500PB Series supports priority retagging and complicated flow classification based on VLAN, MAC, source address, destination address, IP or priority, better streamlining carrier's services;

S2500PB Series provides flexible bandwidth control policies, supporting port-/flow-based flow limit, ensuring the line speed forwarding of each port;

S2500PB Series supports multiple queue schedule algorithms such as SP, WRR and "SP + WRR";

Intelligent POE+

S2500PB Series supports IEEE 802.3AF/AT POE standard, and power mapping scales up to a maximum of 370W of PoE+ power;

S2500PB Series supports POE non-stop power supply. The PoE+ power is maintained during a switch reload;

S2500PB Series supports manual and dynamic
POE power allocation;

S2500PB Series supports up to 2KV thunder-proof of the POE port and power supply;

Easy Management and Maintenance

S2500PB Series supports many management modes such as the CLI, Telnet, SSH, SSL and SNMP;

S2500PB Series supports the WEB management mode, which is easy and efficient for installing and debugging the device;

S2500PB Series supports FTP,TFTP and SFTP; S2500PB Series supports ISSU (In-Service Software
Upgrade);

S2500PB Series supports SNMP and BDCOM NMS smart network management platform. The combination realizes automatic equipment discovery, network topology management, equipment configuration management , performance data statistics and analysis and trouble management;

S2500PB Series supports Zero Touch Provisioning (ZTP) function to minimize manual operator intervention and helps reduce customers' initial deployment costs.

Model Lists

S2510PB

- 8 GE POE ports
- 2 100/1000M SFP ports

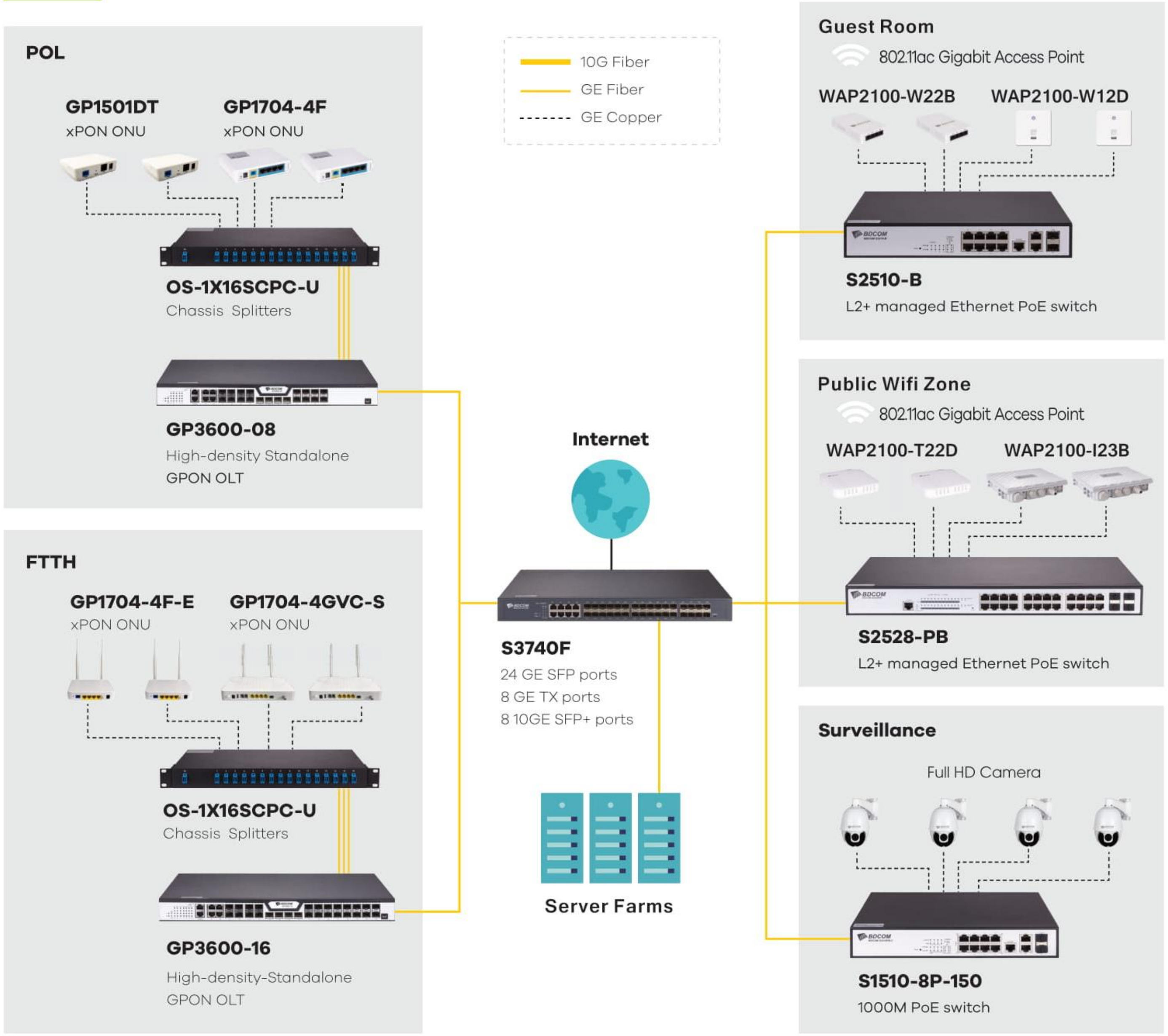
S2518PB

- 16 GE POE ports
- 2 100/1000M SFP ports

S2528PB

- 24 GE POE ports
- 4 100/1000M SFP ports

Application Diagram


POL
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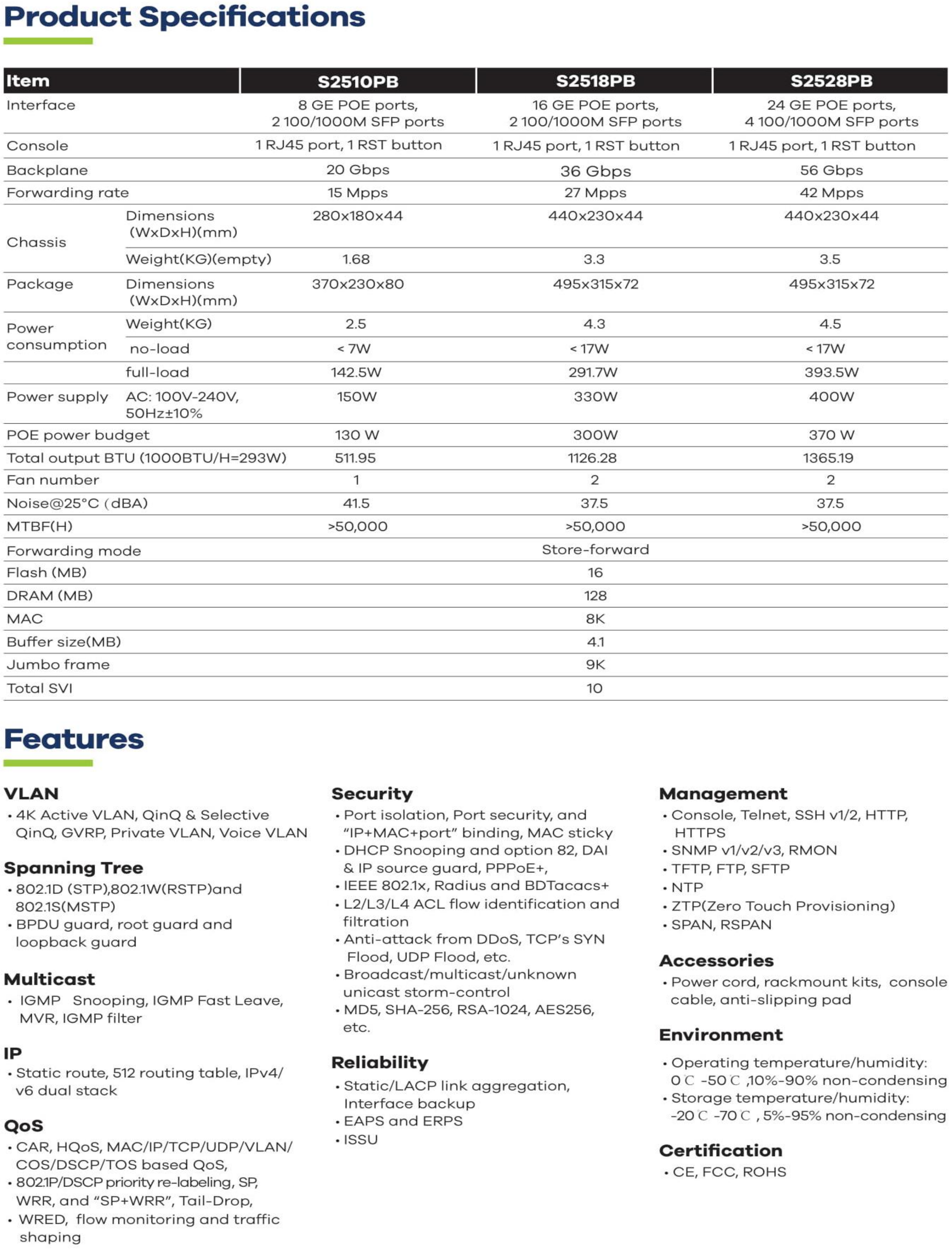
xPON ONU
GP1704-4F
xPON ONU
OS-1X16SCPC-U
Chassis Splitters
GP3600-08
High-density Standalone GPON OLT
FTTH
GP1704-4F-E
xPON ONU
GP1704-4GVC-S
xPON ONU
OS-1X16SCPC-U
Chassis Splitters
GP3600-16
High-density-Standalone GPON OLT
10G Fiber
GE Fiber
GE Copper
Internet
S3740F
24 GE SFP ports
8 GE TX ports
8 10GE SFP+ ports
Server Farms
Guest Room
802.11ac Gigabit Access Point
WAP2100-W22B
WAP2100-W12D
S2510-B
L2+ managed Ethernet PoE switch
Public Wifi Zone
802.11ac Gigabit Access Point
WAP2100-T22D
WAP2100-I23B
S2528-PB
L2+ managed Ethernet PoE switch
Surveillance
Full HD Camera
S1510-8P-150
1000M PoE switch



Product Specifications

Item		S2510PB	S2518PB	S2528PB
Interface		8 GE POE ports, 2 100/1000M SFP ports	16 GE POE ports, 2 100/1000M SFP ports	24 GE POE ports, 4 100/1000M SFP ports
Console		1 RJ45 port, 1 RST button	1 RJ45 port, 1 RST button	1 RJ45 port, 1 RST button
Backplane		20 Gbps	36 Gbps	56 Gbps
Forwarding rate		15 Mpps	27 Mpps	42 Mpps
Chassis	Dimensions (WxDxH)(mm)	280x180x44	440x230x44	440x230x44
	Weight(KG)(empty)	1.68	3.3	3.5
Package	Dimensions (WxDxH)(mm)	370x230x80	495x315x72	495x315x72
Power consumption	Weight(KG)	2.5	4.3	4.5
	no-load	< 7W	< 17W	< 17W
	full-load	142.5W	291.7W	393.5W
Power supply	AC: 100V-240V, 50Hz±10%	150W	330W	400W
POE power budget		130 W	300W	370 W
Total output BTU (1000BTU/H=293W)		511.95	1126.28	1365.19
Fan number		1	2	2
Noise@25°C (dBA)		41.5	37.5	37.5
MTBF(H)		>50,000	>50,000	>50,000
Forwarding mode		Store-forward		
Flash (MB)		16		
DRAM (MB)		128		
MAC		8K		
Buffer size(MB)		4.1		
Jumbo frame		9K		
Total SVI		10		

Features

VLAN

- 4K Active VLAN, QinQ & Selective QinQ, GVRP, Private VLAN, Voice VLAN

Spanning Tree

- 802.1D (STP),802.1W(RSTP)and 802.1S(MSTP)
- BPDU guard, root guard and loopback guard

Multicast

- IGMP Snooping, IGMP Fast Leave, MVR, IGMP filter

IP

- Static route, 512 routing table, IPv4/ v6 dual stack

QoS

- CAR, HQoS, MAC/IP/TCP/UDP/VLAN/ COS/DSCP/TOS based QoS,
- 802.1P/DSCP priority re-labeling, SP, WRR, and "SP+WRR", Tail-Drop,
- WRED, flow monitoring and traffic shaping

Security

- Port isolation, Port security, and "IP+MAC+port" binding, MAC sticky
- DHCP Snooping and option 82, DAI & IP source guard, PPPoE+,
- IEEE 802.1x, Radius and BDTacacs+
- L2/L3/L4 ACL flow identification and filtration
- Anti-attack from DDoS, TCP's SYN Flood, UDP Flood, etc.
- Broadcast/multicast/unknown unicast storm-control
- MD5, SHA-256, RSA-1024, AES256, etc.

Reliability

- Static/LACP link aggregation, Interface backup
- EAPS and ERPS
- ISSU

Management

- Console, Telnet, SSH v1/2, HTTP, HTTPS
- SNMP v1/v2/v3, RMON
- TFTP, FTP, SFTP
- NTP
- ZTP(Zero Touch Provisioning)
- SPAN, RSPAN

Accessories

- Power cord, rackmount kits, console cable, anti-slipping pad

Environment

- Operating temperature/humidity: 0℃ -50℃ ,10%-90% non-condensing
- Storage temperature/humidity: -20℃ -70℃ , 5%-95% non-condensing

Certification

- CE, FCC, ROHS

Ordering Information

Item	Description
S2500PB Series POE Switches	
S2510PB	Ethernet POE switch with 10 GE ports (1 console port, 8 GE POE ports, 2 100/1000M SFP ports, 1 standard AC220V power supply, 150W, the cooling fan, 1U, desktop installation)
S2518PB	Ethernet POE switch with 18GE ports (1 console port, 16 GE POE ports, 2 100/1000M SFP ports, 1 standard AC220V power supply, 330W, the cooling fan, 1U, standard 19-inch rack- mounted installation)
S2528PB	Ethernet POE switch with 28 GE ports (1 console port, 24 GE POE ports, 4 100/1000M SFP ports, 1 standard AC220V power supply, 400W, the cooling fan, 1U, standard 19-inch rack- mounted installation)
Optical Modules	
100M Optical Modules	
FSFP-SX-1310	100M SFP multi-mode (2Km, 1310nm, LC, DDM)
FSFP-LX-15	100M SFP single-mode (15Km, 1310nm, LC, DDM)
FSFP-LX-40	100M SFP single-mode (40Km, 1310nm, LC, DDM)
FSFP-ZX-80	100M SFP single-mode (80Km, 1550nm, LC, DDM)
FSFP-LX-SM1310-20-BIDI FSFP-LX-SM1550-20-BIDI	100M SFP single-mode, single fiber (20Km, TX1310/RX1550, LC, DDM) 100M SFP single-mode, single fiber (20Km, TX1550/RX1310, LC, DDM)
FSFP-LX-SM1310-40-BIDI FSFP-LX-SM1550-40-BIDI	100M SFP single-mode, single fiber (40Km, TX1310/RX1550, LC, DDM) 100M SFP single-mode, single fiber (40Km, TX1550/RX1310, LC, DDM)
FSFP-LX-SM1310-80-BIDI FSFP-LX-SM1550-80-BIDI	100M SFP single-mode, single fiber (80Km, TX1310/RX1550, LC, DDM) 100M SFP single-mode, single fiber (80Km, TX1550/RX1310, LC, DDM)
GE Optical Modules	
GSFP-TX-B	GE SFP-to- RJ45 module
GSFP-SX-D	GE SFP multi-mode (500m, 850nm, LC, DDM)
GSFP-LX-10-D	GE SFP single-mode (10Km, 1310nm, LC, DDM)
GSFP-LX-20-D	GE SFP single-mode (40Km, 1310nm, LC, DDM)
GSFP-LX-40-D	GE SFP single-mode (40Km, 1310nm, LC, DDM)
GSFP-ZX-80-D	GE SFP single-mode (80Km, 1550nm, LC, DDM)
GSFP-ZX-120-D	GE SFP single-mode (120Km, 1550nm, LC, DDM)
GSFP-LX-SM1310-10-BIDI GSFP-LX-SM1550-10-BIDI	GE SFP single-mode, single fiber (10Km, TX1310/RX1550, LC, DDM) GE SFP single-mode, single fiber (10Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1310-20-BIDI GSFP-LX-SM1550-20-BIDI	GE SFP single-mode, single fiber (20Km, TX1310/RX1550, LC, DDM) GE SFP single-mode, single fiber (20Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1310-40-BIDI GSFP-LX-SM1550-40-BIDI	GE SFP single-mode, single fiber (40Km, TX1310/RX1550, LC, DDM) GE SFP single-mode, single fiber (40Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1490-80-BIDI GSFP-LX-SM1550-80-BIDI	GE SFP single-mode, single fiber (80Km, TX1490/RX1550, LC, DDM) GE SFP single-mode, single fiber (80Km, TX1550/RX1490, LC, DDM)
GSFP-LX-SM1490-120 GSFP-LX-SM1550-120	GE SFP single-mode, single fiber (120Km, TX1490/RX1550, LC, DDM) GE SFP single-mode, single fiber (120Km, TX1550/RX1490, LC, DDM)